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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,996

04/13/2004

Shanmugavelayutham Muthukrishnan

2003-0234

4668

26652

7590

10/05/2006

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EXAMINER

LEWIS, CHERYL RENE A

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/822,996	Applicant(s) MUTHUKRISHNAN ET AL.	
	Examiner Cheryl Lewis	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/13/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 are presented for examination.

INFORMATION DISCLOSURE STATEMENT

2. The information disclosure statements filed on April 13, 2004, complies with the provisions of MPEP § 609. They have been placed in the application file, and the information referred to therein has been considered as to the merits.

Allowable Subject Matter

3. Claims 4, 6-9, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 12-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As follows:

Claims 12-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims lack the necessary physical articles

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or objects to constitute a machine or a manufacture within the meaning of 35 USC 101.

They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Claims 12-15 are software claims having a program product. These claims recite a computer-readable medium. The medium as defined in the specification may suggest the computer-readable medium corresponds to any of the possible media including non tangible media such as transmission media including carrier waves or signals and for

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these reasons these claims do not have results which are useful and concrete. Thus, claims 12-15 are computer-readable medium claims that require a physical component. The examiner suggests the use of claim language "computer-readable storage device" in an effort to clarify that the claims comprise physical media.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16-20 recite a system configured to perform the method of either claims 1, 4, 8, 9, and 10. However, claims 16-20 do not recite any detailed claim limitations for which the system can be further implemented. The claims do not comprise any particular data structures, objects, etc.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdel-Mottaleb et al. (Pat. No. 6,226,636 B1 filed November 20, 1998, hereinafter Abdel-Mottaleb) and Chakrabarti (Pat. No. 6,760,724 B1 filed July 24, 2000, hereinafter Chakrabarti).

10. Regarding Claim 1, Abdel-Mottaleb teaches a system for retrieving images using a database.

The system and method for retrieving images using a database as taught or suggested by Abdel-Mottaleb includes:

receiving a data update that indicates a change to data (col. 5, lines 17-67), updating an intermediate data structure having a size substantially smaller than the data size (col. 5, lines 35-67, col. 1-45); updating intermediate data structure remains at-least approximate representation of the data as changed by the data update (col. 17-67); collecting a number of substantially-largest coefficient linear combinations of then-current data (col. 5, lines 35-67, col. 1-45), the number being small (col. 5, lines 35-67, col. 1-45); and forming the multidimensional histogram as a histogram to an intermediate data re-synthesized from the collected linear combinations (col. 5, lines 35-67, col. 1-45).

However, Abdel-Mottaleb does not expressly teach a data array.

Chakrabarti teaches a data array (col. 4, lines 13-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the query method of Abdel-Mottaleb with the query method of Chakrabarti because Chakrabarti's method could enable the query method of

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Abdel-Mottaleb to include a dimensional data array used to express the dimensional regions results of a query wavelet-coefficient data.

11. Regarding Claim 2, Abdel-Mottaleb teaches forming a multidimensional histogram is executed unconditionally in response to reception of the data update (col. 5, lines 17-67).

12. Regarding Claim 3, Abdel-Mottaleb teaches determining whether or not a multidimensional histogram should be formed in response to reception of the data update (col. 5, lines 17-67); and forming the multidimensional histogram is executed conditionally in response to an outcome of the determining step that the multidimensional histogram should be formed in response to the reception of the data update (col. 5, lines 17-67).

13. Regarding Claims 5 and 10, Chakrabarti teaches Haar wavelets (TPHWs) (col. 4, lines 14-20).

NAME OF CONTACT

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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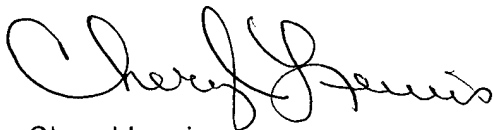
(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Cheryl Lewis". The signature is stylized with a large, looping "C" and a long, sweeping underline.

Cheryl Lewis
Patent Examiner
September 29, 2006